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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)	
550-463	

Application Number	Filed
10/687,924	October 20, 2003
First Named Inventor: FLAUTNER	
Art Unit: 2181	Examiner: H. Kim

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ Applicant/Inventor

☐ Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96)

☒ Attorney or agent of record 27,393 (Reg. No.)

☐ Attorney or agent acting under 37CFR 1.34.
Registration number if acting under 37 C.F.R. § 1.34 _____

Signature

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June 13, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*

☒ *Total of 1 form/s are submitted.

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STATEMENT OF ARGUMENTS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

The following listing of clear errors in the Examiner's rejection and his failure to identify essential elements necessary for a *prima facie* basis of rejection are responsive to the Final Rejection mailed February 13, 2006 (Paper No. 20060126).

1. The Examiner's rejection under 35 USC §112 (second paragraph) is unsupported in the Final Rejection

The Examiner rejects claims 1, 3-8 and 10-14 under 35 USC §112 (second paragraph) as allegedly being indefinite due to the use of the phrase "count value." The Examiner contends that, in claims 1 and 8, the phrase "the count value" has no literal antecedent basis in the claim. While there is no *in haec verba* recitation of "count value," such is not required and this contention is respectfully traversed.

Claims 1 and 8 recite "a performance counter" for "accumulating work done values" in the apparatus and method claims, respectively, and, as would be well known to those of ordinary skill in the art, counters provide a "count" or a "count value." As a result, a "count value" is inherent in the operation of a "performance counter." Inherent components of elements recited in a claim do not require separate antecedent basis.

The Examiner's attention is directed to the Manual of Patent Examining Procedure (MPEP) which specifically states that:

> inherent components of elements recited have antecedent basis in the recitation of the components themselves. For example, the limitation 'the outer surface of said sphere' would not require an antecedent recitation that the sphere has an outer surface." (MPEP Section 2173.05(e).

In the present case, the recitation "the count value" does not require an antecedent recitation that the claimed "performance counter" has a "count value" because all of ordinary

skill in the art are well aware that such counters provide a "count value." The recitation of a "performance counter" provides proper antecedent basis for the recited "count value." Accordingly, there is no basis for rejecting claims 1 and 8 (or claims dependent thereon) under 35 USC §112 (second paragraph) as lacking proper antecedent basis.

It should also be noted that Applicants, in the Rule 116 Amendment which was refused entry by the Examiner in the Advisory Action mailed May 31, 2006, offered to amend the phrase "count value" to read --accumulated work done value--, as this phrase has literal antecedent basis in the claim (is the same thing as the recited "count value" and would obviate this rejection. Entry of this amendment which would appear to have accommodated the Examiner's stated concerns and which would raise no further issues in this application was denied by the Examiner.

2. The Examiner appears to lack an appreciation for the recited claim terminology

Applicants' independent claims 1 and 8 specify an apparatus and method, respectively, for measuring processing work accomplished by a data processor.

Prior art systems for measuring work done (such as disclosed in the cited Cooper patent (U.S. Patent 6,829,713)) use a fixed work value which is the work estimated to be done during a single clock cycle and then the fixed work value is multiplied by the clock frequency to determine the estimate of the work done.

As noted in the present specification, Applicants found that a much more accurate estimate of actual work done is to use a non-fixed work value, i.e., "wherein said work increment value is variable" and thereby reflecting a variable rate of work being performed. Applicants' claimed performance counter adds "a work increment value" to an accumulated work done value,

and the claimed clock signal generator specifically has a variable frequency. Applicants' claim also requires that there be a variable work increment value, and the work increment value is chosen based upon the clock signal frequency value "at or close to a time that the count value is incremented."

It would appear in reviewing the Final Rejection that the Examiner has simply failed to appreciate or understand the recited features of the independent claims, i.e., "wherein said work increment value is variable so as to represent said variable rate of work" and that the "work increment value is dependent upon a clock frequency value at or close to a time the count value is incremented."

The Examiner's failure to appreciate either of these two limitations which are clearly set out in Applicants' independent claims comprises reversible error.

3. The Cooper reference uses a "fixed work value" for each clock cycle and "teaches away" from a variable "work increment value" as claimed

The Examiner finally rejects claims "1-14" [sic] (claims 2 and 9 have previously been cancelled) as being anticipated by Cooper (U.S. Patent 6,829,713). As will be seen, Cooper contains no disclosure of Applicants' claimed subject matter or method step.

Cooper utilizes the conventional and known calculation of a work done value by incrementing the value by the same fixed value per clock cycle for all frequencies. Apparently Cooper does not recognize that the work done by a processor operating at a frequency of "2f" is not necessarily twice the amount of work done by that processor at a frequency of "f" even though twice the number of clock cycles occur when operating at the "2f" frequency. This

anomaly is because the performance of the processor and its associated component may be more or less than might otherwise be expected at different frequencies.

Applicants' invention, both in the apparatus and method claims, solves the problem of inaccurate work assessment, in part, by requiring that the "work increment value is variable." Thus, if the processor is operating at a frequency where the work increment value is lower or higher than the work done at another frequency, it will accurately track the accumulated work done value. Not only does Applicants' claim specify that the "work increment value is variable," the claim also ties the determination of the "work increment value" to the clock signal frequency which is taken "at or close to a time that the accumulated work done value is incremented." Thus, there is a variable work increment value dependent upon the clock frequency at the time the accumulated work done value is incremented which allows Applicants' claimed apparatus and method to much more accurately track actual work done by a processor.

Because the Examiner fails to point out where this structure or method step is shown in the Cooper reference (which utilizes only a fixed value of work done per clock cycle), he cannot support any rejection of the present independent claims in view of the Cooper reference. Indeed, Cooper not only fails to anticipate or render obvious the claimed invention, he actually would lead one of ordinary skill in the art to use "fixed" values and not appellant's claimed variable "work increment values." The lack of recognition in Cooper that use of "fixed" values presents problems in correct work assessment is confirmation of the un-obviousness of the claimed invention. Cooper does not recognize or provide any apparatus or method which will take into account the above anomaly of variations in work done based upon work done at different clock frequencies.

As a result, Cooper does not support any rejection of claim 1, 3-8 and 10-14 under 35 USC §102 or even §103 and any further rejection thereunder is respectfully traversed.

SUMMARY

In view of the above discussion, the Examiner appears to have ignored the instructions of the MPEP §2173.05(e) which observes that "inherent components of elements recited have antecedent basis in the recitation of the components themselves." As a result, the recitation in the claim of a "performance counter," which adds a work increment value to an "accumulated work done value," inherently has a "count value" and therefore separate and specific antecedent basis for the phrase "count value" is not needed. Furthermore, the Examiner appears to ignore specific limitations set out in Applicants' claim, i.e., "said work increment value is variable" and is "dependent on a clock signal frequency value at or close to a time that the count value is incremented." Finally, the Examiner appears to ignore the fact that the single cited prior art reference to Cooper utilizes the same fixed value for all frequencies. Therefore, neither Cooper nor the Examiner appear to recognize the problem created by the use a "fixed" value of work done for each clock cycle and then benefit of Applicants' invention which provides a variable rate of work dependent upon the clock frequency.

As a result of the above, there is simply no support for the rejection of Applicants' independent claims or claims dependent thereon under either 35 USC §112 or §102 (or §103). Applicants respectfully request that the Pre-Appeal Panel find that the application is allowed on the existing claims and that prosecution on the merits should be closed.